

CHAPTER 3

AUTHORIZATION

3.1 RESPONSIBILITIES

- a. Facility Management. The operator of the facility that owns, leases, or operates the mechanical sampling system shall:
- (1) Initiate a written request letter for authorization of the system,
 - (2) Prepare all necessary drawings needed for the authorization (Figure 4),
 - (3) Install approved equipment in the correct manner as prescribed by the manufacturer,
 - (4) Cooperate in examining and testing the system,
 - (5) Maintain the system in the proper environment and in the proper manner,
 - (6) Repair the system, when needed,
 - (7) Sign the authorization indicating agreement with its requirements.
 - (8) Notify the testing office, in writing, (official agency or FGIS field office, as applicable) when:
 - (a) Any physical changes in equipment or facility operations (such as flow rate, added dust collection) occur that may affect the flow to, through or after the sampling system;
 - (b) Alterations to the system are planned (any type);
 - (c) The system will no longer be used for official inspection work; and
 - (d) The facility will not be operational for more than 6 months.

- b. Testing Office. The official agency or FGIS field office that will use the mechanical sampling system for official inspection service must ensure that the system provides a representative sample. This is an essential function. These offices shall:
- (1) Examine the proposed site and determine whether it conforms with the requirements for installation and use of the sampling system. Document problem areas and review them with the facility management.
 - (2) Complete Form FGIS-998, "Questionnaire for Proposed Diverter-Type Mechanical Sampler" (Figure 5); or provide a complete questionnaire on the proposed site and system including usage information, location, loading or unloading rate, name of owner, material to be sampled, etc.
 - (3) Review the site and installation drawings for accuracy. Sign and date the drawings, if they accurately represent the system as installed.
 - (4) At export port locations, do monthly sampler checks (minimum frequency). See Chapter 4.
 - (5) Perform initial, periodic (minimum every 6 months) and supplemental examinations of the site and sampling system.
 - (6) Perform initial, periodic and supplemental testing, as necessary, to determine system accuracy, when first installed or modified.
 - (7) Notify the FGIS field office of any condition that may warrant formal suspension of an authorization.
 - (8) Perform the following record keeping for each system:
 - (a) Prepare Form FGIS-936, "Sampler Condition Report" for each series of examinations and tests performed according to items 5 and 6, above.
 - (b) Forward the original copy of the written request, drawing, Form FGIS-998 and a copy of the Form FGIS-936 to the supervising FGIS field office (when an FGIS field office is the testing office, this material shall be maintained in a permanent file).
 - (c) Maintain the following records:

MECHANICAL SAMPLING SYSTEMS HANDBOOK
CHAPTER 3
11-07-03

- 1 A copy of the request for authorization, drawings of the site and installation drawings provided by the manufacturer showing necessary dimensions, flow rates, belt speeds, etc.;
 - 2 A copy of the completed Form FGIS-998 for proposed diverter-type, probe-type or point-type mechanical sampler installation;
 - 3 A copy of the completed Form FGIS-980, "Authorization to Use Mechanical Sampler for Sampling;" and
 - 4 The original copy of all Form FGIS-936's, issued within the last 5 years.
- c. FGIS Field Office. The FGIS field office that supervises the testing office (or sometimes is the testing office) shall:
- (1) Provide supervision and assistance to the testing office,
 - (2) Provide data for the national database,
 - (3) Prepare and execute (or finalize) Form FGIS-980 after the initial, successful test of the sampler has been completed,
 - (4) Prepare and execute (or finalize) revised Form FGIS-980 for changes in ownership, equipment, agency, etc.,
 - (5) Formally suspend or cancel authorizations, in writing, when warranted,
 - (6) Maintain the following records on each sampler in the field office's circuit:
 - (a) The original copy of the request for authorization, drawings of the site and installation drawings provided by the manufacturer showing necessary dimensions, flow rates, belt speeds, etc.;

- (b) The original copy of the completed Form FGIS-998 for proposed diverter-type, probe-type or point-type mechanical sampler installation; and
 - (c) The original of the completed Form FGIS-980.
- d. FGIS Headquarters. The office in charge of the mechanical sampler testing program shall:
 - (1) Evaluate and grant or deny approval of prototype mechanical sampling equipment and systems;
 - (2) Provide technical support to FGIS field offices, and
 - (3) Maintain a national database updated annually, showing basic information for each official mechanical sampling system, such as: ELEVATOR, LOCATION, AGENCY, FIELD OFFICE.
- e. FGIS Technical Center. The Technical Center shall provide statistical analysis of mechanical truck probe testing data.

3.2 REQUEST FOR INFORMATION

Facility operators interested in installing mechanical sampling systems for official inspection purposes should contact the local FGIS field office for information and assistance. Inquiries should be made through the official agency when the area is served by an official agency.

3.3 REQUEST FOR AUTHORIZATION

- a. Preparation of Request. The operator of the facility should request authorization of a proposed mechanical sampling system in writing, and include a copy of the installation drawing(s) provided by the manufacturer and a complete description, by model and type of equipment, of the sampling system including a drawing or sketch of the proposed system. The drawing must show the proposed sampling system (See Figure 4.) in relation to the following items, as applicable (distances to be shown in feet or meters):
 - (1) Scales, scale hoppers and surge bins;
 - (2) Dump pits;
 - (3) Elevating legs and conveyors;

- (4) Cleaning and shipping bins;
 - (5) Loading and/or receiving spouts and belts;
 - (6) Official inspection laboratory and/or sample collection box location;
 - (7) Dust collection near the sampler; and
 - (8) Sampler access and lockout switch.
- b. Distribution of Request. The facility must send the request, with drawings, to the official agency or FGIS field office that provides original inspection service to the specified service point in which the facility is located (the testing office).
- c. Response to Request.
- (1) Upon receipt of the request, the testing office shall promptly examine the site proposed for the sampling system and determine whether the site and the arrangements conform with the basic requirements for the installation of mechanical sampling systems. If they do not, the testing office must document and review the problem areas with the facility operator.
 - (2) Promptly after that, the testing office shall complete a Form FGIS-998. Then, the testing office shall send to the FGIS field office manager, the written request, drawings and installation data, and the completed Form FGIS-998 showing needed changes. Also, send a copy of the completed form to the facility operator.
 - (3) After reviewing the written request, the drawing and the completed Form FGIS-998, the FGIS field office in charge of the specified service point at which the sampling system is located shall determine if the system meets all requirements (See Chapter 2.) If so, FGIS shall direct the testing office to do an examination and test. When the system does not comply with all authorization requirements, the testing office will be instructed to review the problem areas with the facility management.

3.4 ISSUANCE OF AUTHORIZATION.

- a. Granting of Authorization. Upon notification of a successful test, the FGIS field office shall prepare and issue (or finalize) the Form FGIS-980, "Authorization to Use Mechanical Sampler for Sampling" (Figure 6).
 - (1) The authorization is an agreement among representatives of the facility where the sampling system is installed, the testing office, the FGIS field office and any other persons or firms that may be directly involved.
 - (2) The agreement says that the sampler shall be installed, serviced, operated, and maintained following existing regulations.

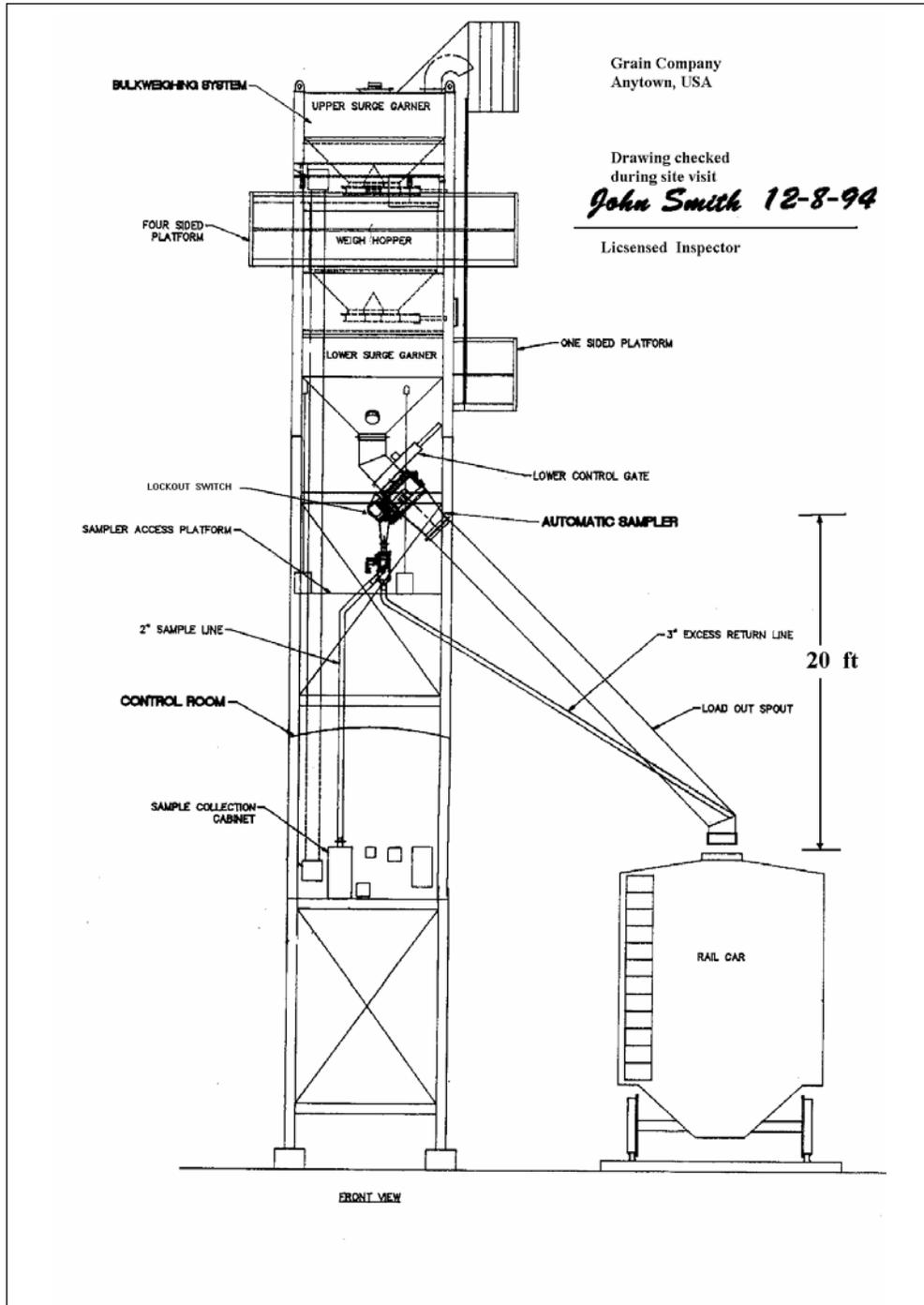


Figure 4. Diverter-Type Sampler Site Drawing

U.S. Department of Agriculture		OMB APPROVED NO. 0580-0013	
Grain Inspection, Packers and Stockyards Administration		Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspects of this collection of information, including suggestions for reducing the burden, to Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Washington, DC 20250; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20250-7630.	
QUESTIONNAIRE FOR PROPOSED DIVERTER-TYPE MECHANICAL SAMPLER			
Facility Name, City, State 1			
Field Office 2			
Kind of Elevator <input type="checkbox"/> Country <input type="checkbox"/> Terminal 3 <input type="checkbox"/> Export		Capacity 4	
Authorization Code - Circle Appropriate Numbers			
D Diverter N Non-diverter P Probe 0 All Grains 1 Small Grains 2 Coarse Grains - Not Corn 5 3 In 4 Out 5 Cargo 6 Barges 7 Hopper Cars 8 Carlots 9 Trucks			
D/T Make and Model 6	S/I 7	<input type="checkbox"/> Spout 8 <input type="checkbox"/> Belt	Spout / Belt Size 9
General Location 10	Spout / Belt Name 11	Spout / Belt Angle 12	Belt Speed 13
Power: <input type="checkbox"/> Air 14 <input type="checkbox"/> Electric	Body Dimensions 15	Pelican Stroke 16	Pelican Opening L x W 17
Grain Drop Before Sampler 18 (ft)	Grain Drop After Sampler 19 (ft)	Access Safe <input type="checkbox"/> Yes 20 <input type="checkbox"/> No	Inspection Door OK? <input type="checkbox"/> Yes 21 <input type="checkbox"/> No
Verified Ho Auxilliary Controls <input type="checkbox"/> Yes 22 <input type="checkbox"/> No	Location of Lockout OK? <input type="checkbox"/> Yes 23 <input type="checkbox"/> No	Lights OK for Exams? <input type="checkbox"/> Yes 24 <input type="checkbox"/> No	
Is Pelican Movement Steady? <input type="checkbox"/> Yes 25 <input type="checkbox"/> No	Does Pressure Return Promptly? <input type="checkbox"/> Yes 26 <input type="checkbox"/> No	Air Pressure at Rest PSI 27	
Timer Make and Model 28	Grain Flow Rate Past Sampler 29	Calculated Timer Setting 30 (s)	
Secondary Make and Model 31	S/I 32	Delivery System <input type="checkbox"/> Gravity 33 <input type="checkbox"/> Pneumatic	Grams per Sample 34
Total No. of Samples 35	Quantity Adjustment Sealed? <input type="checkbox"/> Yes 36 <input type="checkbox"/> No	Delivery and Collection Box Secure <input type="checkbox"/> Yes 37 <input type="checkbox"/> No	Excess Returned to Lot? <input type="checkbox"/> Yes 38 <input type="checkbox"/> No
Dust Control Locations 39			
Weights: <input type="checkbox"/> GIPSA Class X 40 <input type="checkbox"/> GIPSA Class Y <input type="checkbox"/> Certified <input type="checkbox"/> Other _____			
Number of Shipping Bins: 41	Depth 42 (ft)	Graded <input type="checkbox"/> Before or 43 <input type="checkbox"/> After Release?	Procedures to Stop Breakage: 44
Carrier I.D. by: 45 <input type="checkbox"/> Radio <input type="checkbox"/> Visual <input type="checkbox"/> Other _____			
Remarks/special restrictions when used to sample officially: 46			
Signature of Official Personnel: 47			Date: 48
FORM FGIS-998 (11/94) <i>Previous Editions Obsolete</i>			

Figure 5. FORM FGIS 998, ‘QUESTIONNAIRE FOR PROPOSED DIVERTER-TYPE MECHANICAL SAMPLER’

DIRECTIONS FOR COMPLETING QUESTIONNAIRE

1. Facility name, city, and state.
2. Name of FGIS field office.
3. Check the box indicating kind of elevator.
4. Storage capacity of elevator.
5. Authorization Code-circle the numbers that apply to the intended sampler use.
6. Sampler Make & Model; e.g., Gamet 6800S.
7. Sampler Serial Number.
8. Is the sampler in a spout or on a belt end? For spout samplers-diameter or length x width cross sectional measurements or;
9. Belt Size-width and depth of grain carried.
10. General location of sampler; e.g., Headhouse 6th Floor; or Gallery.
11. Spout/belt name; e.g., Scale #1 lower garner.
12. Spout angle-90_ is vertical. Belt Angle-0_ is horizontal. Show normal angle and max/min limits of travel, if angle can be varied.
13. Belt speed-measure with belt loaded.
14. Check the box showing type of power.
15. Body dimensions for the sampler.
16. Pelican stroke is the distance traveled from one side to the other.
17. Length and width of the pelican opening.
18. Distance in feet from release point.
19. Distance grain falls is used to estimate impact and breakage. For example, measure from sampler to bin bottom.
20. Is access to the sampler by approved ladder or stairs, and does the platform have an approved railing?
21. Are the inspection doors properly located on the sampler? Do they have appropriate seal hasps and hinges?
22. Check verified after you determine that the system controls have no bypasses, dump counters, timer interrupts, or programmable controllers.
23. Location of lockout ok-does the lockout provided meet FGIS requirements?
24. Light for examinations-can all exterior examination checks be made with lighting supplied?
25. For pneumatic/hydraulic samplers-is pressure sufficient to move the pelican across the stream of grain evenly, without lagging or slowing down.
26. For pneumatic/hydraulic samplers-pressure returns to maximum before next cut is initiated.
27. For pneumatic samplers-gauge pressure at rest. Maximum reached when no cuts are initiated.

28. Timer Make & Model; e.g., Eagle HP5 Model 9.
29. Flow past sampler should be figured out by timing a known amount, such as one scale draft, as it passes the sampler.
30. Calculate the timer setting in seconds based on grain flow rate past sampler. Also show whether this is based on a 200, 350, or 500 bushel sampling rate.
31. Secondary Sampler (divider) Make & Model; e.g., InterSystems MD300.
32. Secondary Sampler Serial Number.
33. Check box indicating type of sample delivery system.
34. Weight in grams received for the official sample.
35. Total number of samples needed for all interested parties.
36. Are the quantity adjustment features on secondary sampler fixed or sealed in place?
37. Is the sample delivery system secure from the air inlet to the collection box?
38. Is excess grain automatically returned from the secondary to the lot from which the sample was taken?
39. Location of dust collection ducts-are they located where they can affect the sample constituents? The measurements will serve as a record of approved duct work.
40. Weights-are weights official; i.e., supervised under the USGSA as Class X or Y-are weights "Certified"; i.e., supervised unofficially by a local organization-or are weights unofficial and not supervised, or not provided?
41. Shipping bins-number used.
42. Shipping bin depth(s).
43. Grading-will bin be held for grade or factor results before being released?
44. Procedures to stop breakage-will the bins require use of cushion level indicators, grain ladders, or baffles to reduce impact of grain and resulting breakage?
45. Carrier identification or stowage locations.
46. Special restrictions-any special procedural restrictions; e.g., weighback belt must be sealed, turnhead must be locked in position, cushion must be maintained in shipping bin, etc.
47. Name or signature of the official personnel who filled out the questionnaire.
48. Date information obtained.

- b. Distribution of Form FGIS-980.
- (1) The FGIS field office will distribute copies of the Form FGIS-980 to each person who has signed the authorization. A certificate is not issued for the authorization of a sampling system.
 - (2) The FGIS field office will no longer be required to forward a copy of Form FGIS-980 and a copy of the initial Form FGIS-936 to Grain Contract Branch, USDA-CFSA, Kansas City Commodity Office.

Table II. Summary of Distribution and Record Keeping

Office	Prepares	Files Original	Files Copy
Facility	<i>Request Letter Site Drawings</i>		
Testing Office¹	<i>FGIS-998 FGIS-936</i>	<i>FGIS-936 (except initial)</i>	<i>Request Letter Site Drawings FGIS-998 FGIS-936 (initial) FGIS-980</i>
Field Office	<i>FGIS-980</i>	<i>Request Letter Site Drawings FGIS-998 FGIS-936 (initial) FGIS-980</i>	
Headquarters			

¹ When the field office is also the testing office, retain all original records.

3.5 SUSPENSION OF AUTHORIZATION

- a. Causes for Suspension. The sampling attendant or testing office must stop use of the mechanical sampling system when there are causes for suspension. If the causes are not corrected in a timely manner, notify the FGIS field office in charge so FGIS can suspend the authorization in writing. Suspend the authorization if the sampling system is:
- (1) Out of repair;
 - (2) Found with security seals broken or locks removed without explanation²;
 - (3) Altered, without being granted prior approval for the alteration;
 - (4) Not maintained according to the established procedures;
 - (5) Not able to be examined or tested when due;
 - (6) Examined and found to have one or more unsatisfactory items;
 - (7) Tested and found out of tolerance; or
 - (8) Of questionable accuracy or representativeness, for any reason, such as deficiencies noted by the sampling attendant.
- b. Procedure for Suspending an Authorization. To suspend an authorization, FGIS notifies facility management in writing that their authorization is suspended (See Figure 8.) and prepares a written report of the action, including all pertinent facts. File and maintain the documentation with the system's Form FGIS-980.

² Unauthorized seal breakage or lock removal can cause increased cost to industry. A controlled point caution label or tag may be used on sampler inspection doors, but do not use the label itself as a sealing device. Use the caution label/tag only in conjunction with a metal seal or lock. See Figure 7 for examples of approved designs for "Controlled Point Caution Labels and Tags."

- c. Cause for Cancellation and Procedure for Canceling an Authorization. At the discretion of the FGIS field office in charge, an authorization may be canceled if the system has been suspended for more than 6 months. To cancel an authorization, FGIS notifies facility management in writing that their authorization is canceled and prepares a written report of the action, including all pertinent facts. File and maintain the report with the system's Form FGIS-980.
- d. Reinstatement. FGIS shall reinstate suspended sampling systems upon satisfactory completion of all necessary repairs or reactivation of the facility, and a satisfactory examination (or test) of the system by the testing office. The completed Form FGIS-936 will serve as a record of the reinstatement.

United States Department of Agriculture
Federal Grain Inspection Service

AUTHORIZATION TO USE MECHANICAL SAMPLER FOR SAMPLING

Installed in: (Name of facility)	Mechanical Sampler Make & Model	Serial Number
City and State	Secondary Sampler (Divider) Make & Model	Serial Number

Commodity to be sampled:

All Grains
(Groups 1 & 2)

Coarse Grains
Except Corn

Small Grains
(Group 1)

Powders
(Group 3)

Subject to the conditions listed below, authorization is issued to official inspection personnel to use the mechanical sampler for the official sampling of the commodities as indicated above. All interested parties shall be notified by FGIS when the authorization has been suspended or cancelled.

1. Facility management shall service and maintain the mechanical samplers in accordance with existing regulations and instructions under the U.S. Grain Standards Act and the Agricultural Marketing Act of 1946.
2. Official personnel shall make daily or more frequent spot checks, when the samplers are in use for official sampling, to determine that the mechanical samplers are being serviced, operated, and maintained in an approved manner.
3. The mechanical samplers shall be secured or constantly manned by official personnel when they are used for official sampling.
4. All quantities in excess of the amounts required for the official inspection shall be returned to the carrier or the stream of grain or other commodity being sampled.
5. No changes in structure, accessories, location or operation of the mechanical samplers shall be made without specific written authorization from the FGIS Field Office Manager.
6. No manipulation of the commodities to be sampled or other efforts shall be made which would result in the above mechanical samplers failing to obtain and deliver a correct and representative sample.
7. The elevator manager acknowledges personal responsibility for the correct installation of the mechanical samplers.
8. This shall be signed by the manager or superintendent of the facility on behalf of the company that operates the elevator or plant in which the mechanical samplers are installed, and by the Agency or Field Office Manager whose personnel will attend the sampler.
9. The authorization shall be automatically suspended for noncompliance with any of the above conditions; but may be reinstated when corrective action has been taken and approved by the Field Office Manager.

_____	_____	_____	_____
Name of Facility		Facility Manager Signature	
_____	_____	_____	_____
Date	Location		
_____	_____	_____	_____
Official Agency		Agency Manager Signature	
_____	_____	Authorization Approved - USDA	
Date	Location		
_____	_____	_____	_____
Date	Field Office Location	Field Office Manager Signature	
Form FGIS-980 (4-94)		Authorization Code: _____	

Figure 6. Form FGIS-980

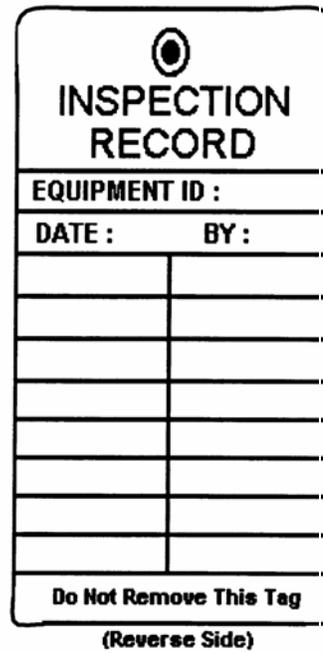
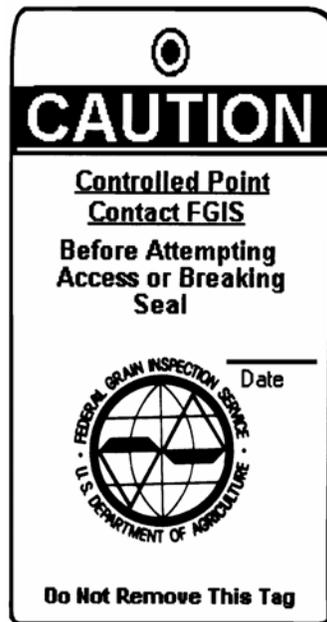


Figure 7. Controlled Point Caution Label and Tag



United States
Department of
Agriculture

Grain Inspection,
Packers and Stockyards
Administration

104 Campus Drive, Suite 200
P.O. Box 640
Destrehan, LA 70047

April 28, 2003

Grain Company
Anytown, USA

Dear Sir:

According to information which this office recently received, your diverter-type mechanical sampler, serial № G-7335 was not examined on schedule by the official agency in your area, due to your facility being temporarily closed for maintenance.

Therefore, as of this date, the authorization to use the mechanical sampler identified above for official inspection purposes is suspended. If you need the authorization reinstated at a future date, please contact the official agency.

Sincerely,

Field Office Manager

cc: Official Agency

Figure 8. Example of Suspension Letter